



## CITY OF SHASTA LAKE SOLAR PHOTOVOLTAIC APPLICATION FOR INTERCONNECTION (NEM A-2)

# Overview of Electric Application Forms

## Introduction

The “Application for Interconnection (NEM A-2)” is used to facilitate interconnect of a permanent Renewable Electrical Generation Facility as described in the Customer-Generator Interconnection Policy. Complete the Electric application process before applying for a building permit. Applicants must submit a complete Electric packet before any review of material is performed. This includes all application forms (A, B, & C), all supporting materials, and payment for all applicable review fees. Currently, fees are \$250 for residential installations and \$500 for non-residential installations.

The application will be processed under the Net Energy Metering Program A-2, as described in the Net Energy Metering Program Tariff.

The City requires original signatures in blue or black ink (a.k.a., wet signatures) on Form A and Form B. No digital signatures, e-signatures, or photocopies will be accepted. Hard copy materials can be delivered in-person, US postal service, FedEx, UPS, or another courier service.

## Overview of Application Forms

### Form A: Customer-Generator (C-G)

1. **Customer-Generator (C-G) Information.** Form A should be completed by the “Customer-Generator,” which is the City electric utility customer. This is typically the owner(s) of the property where the solar PV system will be installed.
2. **System Retailer.** The C-G identifies the company who the C-G is working with for permitting and to install the system. This is typically a licensed contractor.
3. **Equipment Owner.** Identifies the individual or company who will own and operate the equipment after it is installed. This is typically the C-G, but it may be the system retailer (e.g., system lease).
4. **Contract Type.** Mark which “Contract Type” is being used. Provide a copy of the contract between the system retailer and the Customer-Generator.
  - “Customer Owned / Equipment Purchase” includes arrangements where the C-G is purchasing the equipment & installation of equipment with cash or financing the purchase of equipment through a loan. The monetary payment of the loan is based on the cost of the equipment, not the volume or a value of the energy output.
  - “Leased” includes arrangements where the system retailer or third party owns and operates the equipment after installation in return for a lease payment, or form of “rent payment” from C-G.
  - “Purchase Power Agreement” includes an arrangement where C-G issues payment to the system owner based on the electricity production of the system, rather than the cost of the equipment with or without installation, which are not permissible.
5. **Net Surplus Generation.** C-G indicates whether C-G wishes to participate in the City’s Net Surplus Program under which the City compensates C-G for all Net Surplus Energy (i.e., excess generation that is exported to the grid). In order to participate, C-G must (1) mark “Yes”, and (2)

provide a completed and signed W-9 with information corresponding to the electric utility account holder.

- For electric accounts held by a company name (rather than an individual person), the W-9 must include the tax ID for the company that holds the electric utility account with the City (i.e., no affiliate or subsidiaries will be accepted).
  - If C-G marks “Yes” but does not provide a completed W-9, the C-G will not be enrolled in the Net Surplus Program.
  - If no election is made, the C-G will not be enrolled in the Net Surplus Program.
  - A C-G may change their participation, with all selections effective on a prospective basis only, and on the next full billing cycle available after City completes its verification of all documentation.
  - In the event a property is sold, or the electric account is otherwise transferred, the subsequent C-G is responsible for making a customer election for their participation in the Net Surplus Program (i.e., the preceding C-G’s customer election is not transferrable to a subsequent C-G).
6. **C-G initials, signature, and date.** Page 2 has several spaces the C-G must initial and space at the bottom where C-G must sign and date. All initials, signature, and date are required.

### Form B: Contractor

Form B should be completed by the Contractor, or the C-G if the system is a self-install.

Form B will be reviewed by the Electric Department and may be returned for clarification or corrections. Each iteration of Form B will be marked and dated. Excessive review iterations are subject to additional fees.

1. **Customer-Generator (C-G) Information.** Same contact information as Form A, Section 1.
2. **Contractors’ Points of Contact.** Same contact information as Form A, Section 2. Additionally, provide contact information for the person or company who will be responsible for physically installing the system. This information is only used if there is coordination or issues during construction.
3. **Generation Information.** Provide the cost of the system before any tax credits are applied and the type of mounting (ground or rooftop).
4. **Component Information.** Provide details about the modules and inverters. Note that the value for “Module PTC Power Rating (Watts DC)” is for each panel.
5. **Installation Details.** Summarize installation details (i.e., stand off, array tilt, array azimuth, etc.) from the submitted planning documents (e.g., plot plan or one/three line diagram). Enter details for each array using commas to separate data. Enter these values in the CSI-EPBB web-based calculator. Provide the CSI report for each array. No shading analysis is required if you select “minimal shading.”
6. **System Output, per CSI-EPBB Results.** Summarize the results of the CSI model. Combine results for all arrays. See last page for detailed instructions on the CSI-EPBB web-based model.
7. **C-G Electricity Usage and Premises Information.** Provide details only for the section that applies. For low-rise residential buildings under construction, complete items 7A-7C. For all others, complete items 7D-7F. NOTE: reports in line items 7B & 7C are optional. Solar contractors should provide these materials if the home builder plans to submit such documents as part of the planning and permitting process.

8. **Energy Storage Information.** All applications must complete item 8A. If “Yes,” complete all remaining items. For items 8E-8L, enter combined data for the entire system. For example, if one ESS unit has usable capacity of 10 kWh, and this installation will contain 2 of these units, the entry in line 8G should be 20.
9. **Electric Panel and Main Service Disconnect Information.** All applications must complete Lines A and B. Complete Line C only if “Other” is selected under Line B. Indicate “Yes” on Line A if you are seeking to upgrade the electric panel. For example, if the existing panel is rated at 100 amps, and you plan to upsize this to a 200 amp service, mark “Yes.” For Line B, indicate the location of the Main Service Disconnect. Respond to Line C only if applicable.
10. **Contractor Acknowledgements.** Contractor’s representative signs & dates last page.

### Form C: Request for Interconnection Approval (Permission to Operate)

Form C should be completed by the Customer-Generator or Contractor by providing the address where the Equipment will be installed (no signatures required).

The Electric Department will provide a sign Form C after all inspections are satisfied, giving permission to operate the Equipment. The Equipment must not be energized prior to PTO issuance.

## Interconnection Checklist and Process

### 1. Electric Application Checklist:

- Electric Application Forms A, B, & C. Original signatures required on Forms A & B.
- IRS W-9, if applicable.
  - To help protect C-G confidentiality of personal identifying information, the W-9 may be enclosed in a sealed envelope with the following clearly marked on the outside of the envelope. C-G may deliver the W-9 directly to the City, bypassing the System Retailer, if C-G wishes.
- Payment for all applicable fees.
  - \$250 Residential, \$500 non-Residential
  - Make checks payable to City of Shasta Lake
  - You may pay by credit card over the phone (530) 275-7400 during regular business hours of M-F, 7:00a – 4:00p local time, excluding holidays.
- Other supporting documents.
  - Site plan, PV system design, and electrical one-line or three-line drawing showing: electric panel, existing meter, AC disconnect, inverters and PV panel locations. Max 8.5”x11”
  - Note: AC disconnect should have an external and lockable switch.
  - CSI EPBB Calculator Results pages generated from the online calculator. For systems with multiple arrays, prepare a CSI report for each array and submit all copies.
  - Shading Analysis - Solar Pathfinder or Solmetric reports. If no shading analysis is performed, do not use “minimal shading” when estimating system output.
  - If system is not roof-mounted, include a plot plan with proposed system location and trenching in relation to existing utilities/easements, and disclose easements.

NEM A-2 Application Material  
 C/O: Financial Services Manager  
 [Installation Address]

2. Applicant submits the Electric Application packet to the City in both hardcopy and electronic copy formats. Retain copies for your files:

Hard Copies	Electronic Copies	Payment of Fees
City of Shasta Lake Re: Solar Application 4477 Main Street   PO Box 777 Shasta Lake, CA 96019	<a href="mailto:COSLSolar@cityofshastalake.org">COSLSolar@cityofshastalake.org</a>	Make check payable to “City of Shasta Lake” and remit with hardcopies, or by phone (530) 275-7400 during normal business hours of M-F, 7:00a – 4:00p, local time, excluding holidays

3. Correction process, if needed.

- Applicant is responsible for implementing any corrections identified by City personnel, at Applicant’s sole cost and expense. Please note, if more than 2 review iterations are required, the City may assess additional review fees on Applicant.
- City will typically correspond through City email accounts, or from ESG Group LLC, but may use other email accounts at its discretion.
- The PV system owner will be responsible for adjusting system settings or design size if necessary to avoid impacting neighboring city electricity users with unacceptable voltage or poor power quality.

4. Electric Department will contact Contractor once the system design is approved.

- Email will be sent to the Contractor’s designated contact on Form B.
- A copy of the final / approved system design will be provided in that communication.

5. Building permit application.

- After the system is approved for interconnection, Contractor must apply for a Building Permit from the Development Services Department. Refer to DSD resources for more information (530) 275-7430 and <https://cityofshastalake.org/108/Development-Services>.
- The system included in the building permit application must match the system approved by the Electric Department.
- All system components and installation details that require a building permit will be addressed at this stage, including but not limited to: electric panel upsizing, energy storage systems, etc.
- Any changes in the system design after the Electric Department approves the Electric Application results in an immediate revocation of the Electric Departments approval, whether the changes are made by Contractor or required by the City, such as during the building permit application process. Contractor must amend all applicable Electric Application materials and resubmit to the Electric Department for approval.

6. Construction.

- Do not build until both: (1) the interconnection application is approved by the local electric utility, and (2) the City issues a building permit.
- **DO NOT TAMPER.** Under no circumstances shall Customer-Generator, Contractor or any affiliates tamper with or remove the electric service meter or gain access to any electric panels on the utility side of the meter.
- Electric service disconnection and reconnection must be performed by authorized City personnel for accounts served by the City’s Electric Department. Schedule an appointment by contacting the Development Services Department. City encourages installers to conduct their tasks in ways that promotes worker safety and minimizes the time the customer is without electric service. Any calls placed after 2:30p, local time, for electric service reconnection are subject to additional fees at premium pay.

- **NO UNAUTHORIZED DEVICES.** The system installer shall not install any equipment (e.g., donut CTs) in the electric utility side of the metering cabinet nor shall the system utilize supply-side taps (a.k.a., line-side taps).
7. Inspection.
- Contact the City's Development Services desk to schedule inspections.
8. Interconnection approval, permission to operate.
- **DO NOT ENERGIZE THE SYSTEM WITHOUT A SIGNED PTO LETTER FROM THE ELECTRIC UTILITY.** A Form C, signed by an authorized representative of the City's Electric Department, is required prior to operating (energizing) the system.
  - Electric Department staff will issue an electronic version of Form C in approximately 14-30 business days following inspection.

## CSI Calculator Instructions

Prepare a CSI report for each array.

### CSI EPBB INPUT

1. Complete / enter information for the section on the application form:
  - Mounting Method (avg. standoff) – average standoff between the mounting surface and PV module/mounting rack (in inches)
  - Shading – check Minimal Shading box if no solar obstruction is closer than a distance twice the height it extends above the PV modules, or check Analysis Attached if you have attached a shading analysis (including monthly de-rate factors)
  - Array Tilt – in degrees
  - Array Azimuth – in degrees (assume True North = 0 degrees)
2. Enter system array data from the application form in the online PV EPBB Incentive calculator\*:
  - Go to <http://www.csi-EPBB.com/default.aspx>
  - Entry in the calculator must match information entered on the application. Additional entry standards are: Zip Code = **96019** Utility = **PG&E** Incentive Type = **EPBB**
  - PRINT A COPY OF THE INPUT PAGE. Click the "GO" Button to view results.
  - PRINT A COPY OF THE RESULTS PAGE and attach to the completed application form (2 pages).

\*For more details on using the online calculator, see <http://www.csi-EPBB.com/CSICalculatorV6UserGuide.pdf>.

### CSI EPBB RESULTS

Complete / enter information on the application form from the RESULTS page of the EPBB calculator:

- *Estimated Annual kWh*
- *CSI Power Rating (in kWAC)*

The Utility reserves the right to evaluate the EPBB calculator inputs to ensure accuracy of inputs and the system design meets program specifications. If the EPBB calculator inputs were entered incorrectly, the Utility shall inform the Customer in writing and Customer shall revise its EPBB calculation and/or re-assess its Equipment design, based on the de-rate factors found.